

1. GENERAL

1.1. REFERENCES

- .1 City of Winnipeg Accessibility Design Standards, 2015.
- .2 Aluminum Association, Inc. (AAI)
 - .1 AAI DAF45-[03], Designation System for Aluminum Finishes.
- .3 ASTM International Inc.
 - .1 ASTM A 653/A 653M-07, Standard Specification for Steel Sheet, Zinc-Coated, (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
 - .2 ASTM B 32-04, Standard Specification for Solder Metal.
- .4 ASTM B 456-03, Standard Specification for Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium.
- .5 Canada Green Building Council (CaGBC)
 - .1 LEED Canada NC 2009, LEED: Green Building Rating System Reference Package for New Construction and Major Renovations (including Addendum).
- .6 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-1.81-M90, Air Drying and Baking Alkyd Primer for Vehicles and Equipment.
 - .2 CAN/CGSB-1.88-92, Gloss Alkyd Enamel, Air Drying and Baking.
 - .3 CGSB 31-GP-107Ma-90, Non-Inhibited Phosphoric Acid Base Metal Conditioner and Rust Remover.
 - .4 CGSB 41-GP-6M-1983, Sheets, Thermosetting Polyester Plastics, Glass Fibre Reinforced. Reaffirmation of September 1976.
- .7 Canadian Standards Association (CSA International)
 - .1 CAN/CSA-G164-M92(R2003), Hot Dip Galvanizing of Irregularly Shaped Articles.
 - .2 CSA W47.2-M1987(R2008), Certification of Companies for Fusion Welding of Aluminum.
 - .3 CSA W59-03, Welded Steel Construction (Metal Arc Welding).
 - .4 CSA W59.2-M1991(R2003), Welded Aluminum Construction.
- .8 Canadian Sheet Steel Building Institute (CSSBI)
 - .1 CSSBI SSF 6-1995, Sheet Steel Facts #6, Metallic Coated Sheet Steel for Structural Building Products-July 1995.
- .9 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
 - .1 Material Safety Data Sheets (MSDS).
- .10 The Master Painters Institute (MPI)
 - .1 Architectural Painting Specification Manual - February 2004.

1.2. ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Co-ordinate submittal requirements and provide submittals required by Section 01 35 20 – LEED Sustainable Requirements.
- .3 Shop Drawings:
 - .1 Indicate sign styles, lettering font, foreground and background colours, thickness, locations, mounting method and overall dimensions of each sign.
 - .2 Submit drawn to scale details for individually fabricated or incised lettering indicating word and letter spacing.
- .4 Samples:
 - .1 Submit representative sample of each type sign, sign image and mounting method.

1.3. DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory

packaging, labelled with manufacturer's name and address.

2. PRODUCTS

2.1. MATERIALS

- .1 Casting aluminum: to AA 6063-T5 or 6006-T5.
- .2 Sheet aluminum: utility quality.
- .3 Prefinished sheet aluminum: plain utility sheet with manufacturer applied baked enamel finish 0.25 mm thick on face and 0.0076 mm thick on back.
- .4 Casting aluminum: CSA HA Series - HA.9-SG7ON-T6.
- .5 Prefinished sheet steel: conforming to CSSBI - Sheet Steel Facts #6: for normal environments.
- .6 Galvanized steel sheet to ASTM A653/A653M: Commercial Quality
- .7 Acrylic sheet: polymethylmethacrylate (PMMA) cast sheet suitable for intended use in sign fabrication, colours as indicated.
- .8 Engraving sheet: lamicoid 3.2 mm thick plastic sheet, white core.
- .9 Self-stick foam tape: 1.6 mm thick, 352.4 kg/m³ density polyurethane open-cell foam tape for sign purposes, with synthetic self-stick adhesive on both sides. Width: to suit sign sizes.
- .10 Adhesives, paints, sealants and solvents for acrylic sheet: type recommended by sheet manufacturer for applicable condition.
- .11 Acrylic top-coat: clear, non-yellowing, exterior grade, satin finish, acrylic polyester resin protective coating, compatible with acrylic surface of type recommended by sheet manufacturer.
- .12 Bituminous paint: to CAN/CGSB-1.108, type 2.

2.2. SIGN GRAPHICS

- .1 Sign graphics: well defined, arranged for balanced appearance, and properly word and letter spaced.
- .2 Cut and spray process: mask surfaces, accurately cut-out image, spray apply uniform coating to obtain opaque finish.
- .3 Silk screen process: apply multi colour photographic produced silk screen printed images to back side of transparent sign faces; face side of opaque sign faces.
- .4 Engraving: apply sign images using pantograph mechanical engraving machine to obtain incised letters as detailed or specified.
- .5 Self-stick vinyl film: individual letters and numerals and symbols die cut from 0.1 mm thick matte finish, exterior grade PVC film, with self-stick adhesive backing. Colours to be determined by Contract Administrator from manufactures full range of colours.
- .6 Decals: silk screened or printed images on 0.038 mm, clear matte finish, mylar film, with self-stick adhesive backing.

2.3. GENERAL FABRICATION

- .1 Fabricate signs in accordance with details, specifications and shop drawings.
- .2 Build units square, true, accurate to size, free from visual or performance defects.
- .3 Accurately fit and securely join sections to obtain tight, closed joints.
- .4 Allow for thermal movement without distortion of components.
- .5 Exposed fasteners permitted only where indicated or approved by Contract Administrator and to be inconspicuous and same finish and colour as base material, or as noted.
- .6 Polish exposed edges of plastic and metal to smooth, slightly convex profile.
- .7 Apply bituminous paint to aluminum in contact with dissimilar metals, concrete or masonry.
- .8 Manufacturer's nameplates on sign surface locations visible in completed work not acceptable.

3. EXECUTION

3.1. EXAMINATION

- .1 Verification of Conditions: verify conditions of substrates previously installed under other Sections or Contracts are acceptable to receive work.

3.2. APPLICATION

- .1 Erect and secure signs plumb and level at elevations indicated.
- .2 Install signage to manufacturer instructions and approved shop drawings.
- .3 Install signs after doors and other surfaces are finished, in locations as shown in Drawings.
- .4 Where permanent identification is provided for rooms and spaces, signs shall be installed on wall adjacent to the latch side of the door, located with centre line at a height of 60".
- .5 Confirm all signage locations with Contract Administrator prior to installation.
- .6 Mechanical Attachment:
 - .1 To concrete or solid masonry use lag screws and expansion bolts or screws and fibre plugs, as appropriate for stresses involved.
 - .2 To hollow masonry use toggle bolts or equivalent in accordance with B6.
 - .3 To steel use bolts with nut and lock washers, self-tapping screws, welding, as appropriate for stresses and metal thicknesses.
 - .4 To wood use screws.
 - .5 Secure into framing members behind stud walls or above ceilings.
 - .6 Mechanical fasteners on exterior to be non-staining, non-ferrous type.
 - .7 Fabricate special fasteners as required for installation conditions.
 - .8 Mechanical fasteners and methods of attachment subject to Contract Administrator approval. Obtain Contract Administrator approval before fixing to structural steel.

3.3. SCHEDULE

- .1 Universal w/c, staff w/c, male/female washrooms
 - .1 Provide 1/4" matte anodized aluminum laser engraved signs as per drawings.
 - .2 Braille: clear plastic "raster" type. Confirm braille text conforms with City of Winnipeg requirements.
 - .3 Concealed fastening with dowels into masonry block wall.
 - .4 Digital file to be supplied by Contract Administrator to fabricator.
- .2 Interior glass walls:
 - .1 Provide two rows staggered 2"Ø white vinyl dots, 5" o.c. at 47" & 59" AFF across width of interior glass and interior glass doors.
 - .2 Install as per drawings on backside of glass.
 - .3 Digital file to be supplied by Contract Administrator to fabricator.
- .3 Fire Extinguishers:
 - .1 Coordinate with fire extinguisher supplier to provide signage as necessary with requirements of authorities having jurisdiction to indicate locations of portable extinguishers.
- .4 Exterior parking signs:
 - .1 Provide aluminum parking sign panels with engineer grade reflective decal as indicated on drawings. Digital file to be supplied by Contract Administrator to fabricator.
 - .2 Provide galvanized steel posts for signs as indicated on drawings.
- .5 Exterior sign:
 - .1 Provide two-sided 32"x120"x12" deep steel cabinet c/w hinged face for access as per drawings.
 - .2 Provide 8"x8" steel post with removable panel to hide electrical feed.

- .3 All steel to be duplex system hot-dip galvanized and powder coated white.
- .4 Sign material: 3/16" polycarbonate sign, graphics as per drawings, supplied by Contract Administrator.
- .5 Provide spray on liquid clear coat for anti graffiti protection (Matthews Clear Coat).
- .6 Provide LED fixture for diffused even light at minimum 400 lumens per square foot.

END OF SECTION.

1. GENERAL

1.1 RELATED REQUIREMENTS

- .1 Section 04 22 00 – Concrete Unit Masonry

1.2 REFERENCES

- .1 ASTM International (ASTM):
 - .1 ASTM A 240 - Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications.
 - .2 ASTM A 666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
 - .3 ASTM A 743/A 743M - Standard Specification for Castings, Iron-Chromium, Iron-Chromium-Nickel, Corrosion Resistant, for General Application.
 - .4 ASTM B 86 - Standard Specification for Zinc and Zinc-Aluminum (ZA) Alloy Foundry and Die Castings.
 - .5 ASTM B 221 - Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
 - .6 ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- .2 International Code Council (ICC)/American National Standards Institute (ANSI):
 - .1 ICC/ANSI A117.1 - Accessible and Usable Buildings and Facilities, as applicable to toilet compartments designated as accessible.
- .3 GREENGUARD Environmental Institute (GREENGUARD):
 - .1 GREENGUARD certified low emitting products.

1.1. ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit manufacturer's printed product literature, specifications and data sheet in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Test Reports: When requested by Contract Administrator, submit documentation by qualified independent testing agency indicating compliance of products with requirements.
- .3 Submit two copies of WHMIS MSDS - Material Safety Data Sheets in accordance with Section 01 33 00 - Submittal Procedures. Indicate VOC's insulation products and adhesives.
- .4 Manufacturer's Instructions:
 - .1 Submit manufacturer's installation instructions.
- .5 Co-ordinate submittal requirements and provide submittals required by Section 01 35 20 – LEED Sustainable Requirements.
- .6 Shop Drawings: Include overall product dimensions, floor plan, elevations, sections, details, and attachments to other work. Include choice of options with details.
 - .1 Samples for Verification: Furnish physical sample of material in selected color.
 - .1 Size: 2 by 2 inch (52 by 52 mm) minimum, in type of finish specified.

1.2. QUALITY ASSURANCE

- .1 Installers Qualifications: Experienced Installer regularly engaged in installation of toilet compartments for minimum 3 years.
- .2 Source Limitations: Obtain toilet compartment components and accessories from single manufacturer.
- .3 Surface-Burning Characteristics: As determined by testing identical products according to ASTM E 84 by qualified testing agency. Identify products with appropriate markings of applicable testing agency.
 - .1 Flame-Spread Index: 30.
 - .2 Smoke-Developed Index: 55.

1.3. QUALITY ASSURANCE

- .1 Installers Qualifications: Experienced Installer regularly engaged in installation of toilet compartments for minimum 3 years.
- .2 Source Limitations: Obtain toilet compartment components and accessories from single manufacturer.

1.4. DELIVERY, STORAGE AND HANDLING

- .1 Do not deliver toilet compartments to site until building is enclosed and HVAC systems are in operation.
 - .1 Deliver toilet compartments in manufacturer's original packaging.
 - .2 Store in an upright condition.

1.5. WARRANTY

- .1 Special Manufacturer's Warranty: Manufacturer's standard 25 year limited warranty for panels, doors, and stiles against breakage, corrosion, delamination, and defects in factory workmanship. Manufacturer's standard 1 year guarantee against defects in material and workmanship for stainless steel door hardware and mounting brackets.

2. PRODUCTS

2.1. MANUFACTURERS

- .1 Acceptable Manufacturer: Subject to compliance with requirements, provide products of Bobrick Washroom Equipment, 6901 Tujunga Ave, North Hollywood, CA, 91605
 - .1 Contact Information: (818)764-1000, fax (818)503-1930; Email: info@bobrick.com; Website: www.bobrick.com

2.2. MATERIALS

- .1 Solidly fused plastic laminate with matte-finish melamine surfaces; integrally bonded colored face sheets and black phenolic-resin core.
- .2 Zinc Aluminum Magnesium and Copper Alloy (Zamac): ASTM B 86.
- .3 Stainless Steel Sheet: ASTM A 240 or A 666, 300 series.
- .4 Stainless Steel Castings: ASTM A 743/A 743M.
- .5 Aluminum: ASTM B 221.

2.3. PHENOLIC TOILET COMPARTMENTS

- .1 Toilet Compartment Type:
 - .1 Bobrick DuraLine Series 1082G
 - .2 Standard Height: 58", floor clearance 12".
 - .3 Gap-free interlocking design.
 - .4 Floor-mounted, overhead-braced with
 - .5 Anti-graffiti: non-ghosting graffiti removal.
- .2 Headrails: extruded anodized aluminum, satin finish with anti-grip profile
- .3 Stile standard height: 70"
- .4 Door, Panel, and Pilaster Construction, General: Form edges with 15 degree bevel without crown molding. Finish edges smooth.
 - .1 Provide exposed surfaces free of pitting, visible seams, and fabrication marks, stains or other imperfections.
 - .2 Core material: Manufacturer's standard solid resin core of thickness required to provide finished thickness for doors, panels and pilasters.
- .5 Door Construction: 3/4" thick
- .6 Panel Construction: 1/2" thick
- .7 Pilaster Construction: 3/4" thick
- .8 Stiles: Floor-anchored stiles furnished with expansion shields and threaded rods.

- .1 Leveling Devices: 7 gauge, 3/16 inches (5 mm) thick, corrosion-resistant, chromate-treated, double zinc-plated steel angle leveling bar bolted to stile; furnished with 3/8 inch (10 mm) diameter threaded rods, hex nuts, lock washers, flat washers, spacer sleeves, expansion anchors, and shoe retainers.
- .2 Stile Shoes: One-piece, 22 gauge (0.8 mm), 18-8, Type 304 stainless steel, 4 inch (102 mm) height; tops with 90 degree return to stile. One-piece shoe capable of adapting to 3/4 inch (19 mm) or 1 inch (25 mm) stile thickness and capable of being fastened (by clip) to stiles starting at wall line.
- .9 Anchors: Expansion shields and threaded rods at floor connections as applicable.
- .10 Urinal screen construction to match toilet compartment construction.
 - .1 Wall-hung at 60", with 24" clear to floor.
- .11 Colour: Wilsonart Graphite Nebula 4623-60

2.4. HARDWARE

- .1 Compliance: Operating force of less than 5 lb (2.25 kg).
- .2 Emergency Access: Hinges, latch allow door to be lifted over keeper from outside compartment on inswing doors.
- .3 Materials: 18-8, Type 304, heavy-gauge stainless steel with satin finish.
- .4 Doorstops: Prevents inswinging doors from swinging out beyond stile; on outswing doors, doorstop prevents door from swinging in beyond stile.
- .5 Fastening: Hardware secured to door and stile by through-bolted, theft-resistant, pin-in-head Torx stainless steel machine screws into factory-installed, threaded brass inserts. Fasteners secured directly into core not acceptable.
 - .1 Threaded Brass Inserts: Factory-installed; withstand direct pull force exceeding 1500 lb (680 kg) per insert.
- .6 Clothes Hooks: Projecting no more than 1-1/8 inch (29 mm) from face of door.
- .7 Door Hardware Type:
 - .1 Latching: Track of door latch prevents inswing doors from swinging out beyond stile; on outswing doors, door keeper prevents door from swinging in beyond stile; 16 gauge (1.6 mm) sliding door latch, 14 gauge (2 mm) keeper.
 - .2 Hinges: Balanced, with field-adjustable cam to permit door to be fully closed or partially open when compartment is unoccupied.
 - .3 Locking: Door locked from inside by sliding door latch into keeper.
- .8 Fittings:
 - .1 Standard, commercial hardware.
 - .1 Mounting Brackets: Mounted inside compartment; exposed brackets on exterior of compartment not acceptable with the exception of outswing doors.

2.5. FABRICATION

- .1 Overhead-Braced Units: Provide manufacturer's standard corrosion-resistant supports, leveling mechanism, and anchors at pilasters to suit floor conditions. Provide shoes at pilasters to conceal supports and leveling mechanism.

3. EXECUTION

3.1. EXAMINATION

- .1 Examine work area to verify that measurements, substrates, supports, and environmental conditions are in accordance with manufacturer's requirements to allow installation.
 - .1 Proceed with installation once conditions meet manufacturer's requirements.

3.2. INSTALLATION

- .1 General: Comply with manufacturer's written installation instructions. Install units rigid, straight, level, and plumb. Secure units in position with manufacturer's recommended

anchoring devices.

- .2 Install toilet partitions and screens in spaces with operating, temperature controlled HVAC systems. Shield partitions and screens from direct sunlight.
- .3 Clearances: Install with clearances indicated on Drawings. Where clearances are not indicated, allow maximum 1/2 inch (13 mm) between pilasters and panels, and 1 inch (25 mm) between panels and walls.

3.3. ADJUSTING

- .1 Hardware Adjustment: Adjust and lubricate hardware according to hardware manufacturer's written instructions for proper operation. Set hinges on in-swinging doors to hold doors open approximately 15 degrees from closed position when unlatched. Set hinges on out-swinging doors to return doors to fully closed position.

3.4. FINAL CLEANING

- .1 Remove packaging and construction debris and legally dispose of off-site.
- .2 Clean partition and screen surfaces with materials and cleansers in accordance with manufacturer's recommendations.

END OF SECTION.

1. GENERAL

1.1 RELATED REQUIREMENTS

- .1 Section 04 22 00 – Concrete Unit Masonry
- .2 Section 05 50 00 – Metal Fabrications
- .3 Section 08 80 50 – Glazing
- .4 Section 10 21 13 – Toilet Compartments

1.2 REFERENCES

- .1 ASTM International
 - .1 ASTM A 167-[99(2009)], Standard Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.
 - .2 ASTM B 456-[03], Standard Specification for Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium.
 - .3 ASTM A 653/A 653M-[09], Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
 - .4 ASTM A 924/A 924M-[09], Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.
- .2 Canada Green Building Council (CaGBC)
 - .1 LEED Canada NC 2009, LEED: Green Building Rating System Reference Package for New Construction and Major Renovations (including Addendum).
- .3 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-1.81-[M90], Air Drying and Baking Alkyd Primer for Vehicles and Equipment.
 - .2 CAN/CGSB-1.88-[92], Gloss Alkyd Enamel, Air Drying and Baking.
 - .3 CGSB 31-GP-107MA-[90], Non-inhibited Phosphoric Acid Base Metal Conditioner and Rust Remover.
- .4 CSA International
 - .1 CAN/CSA-B651-[04], Accessible Design for the Built Environment.
 - .2 CAN/CSA-G164-[M92(R2003)], Hot Dip Galvanizing of Irregularly Shaped Articles.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Co-ordinate submittal requirements and provide submittals required by Section 01 35 20 – LEED Sustainable Requirements.
- .3 Product Data:
 - .1 Provide manufacturer's printed product literature and data sheets and include product characteristics, performance criteria, physical size, finish and limitations.
- .4 Shop Drawings: Include overall product dimensions, sections, details, and attachments to other work. Include choice of options with details.

1.4 CLOSEOUT SUBMITTALS

- .1 Provide maintenance data for toilet and bath accessories for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

1.5 MAINTENANCE MATERIAL SUBMITTALS

- .1 Tools:
 - .1 Provide special tools required for assembly, disassembly or removal for toilet and bath accessories in accordance with requirements specified in Section 01 78 00 - Closeout Submittals.

- .2 Deliver special tools to Contract Administrator.

1.6 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials off ground indoors in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Store and protect toilet and bathroom accessories from nicks, scratches, and blemishes.
 - .3 Replace defective or damaged materials with new.
- .4 Packaging Waste Management: remove for reuse and return of pallets, crates, padding, and packaging materials.

2. PRODUCTS

2.1 MATERIALS

- .1 Sustainability Characteristics:
 - .1 Solid surface Adhesives:
 - .1 Urea Formaldehyde Free.
- .2 Fasteners: concealed screws and bolts hot dip galvanized, exposed fasteners to match face of unit. Expansion shields fibre, lead or rubber as recommended by accessory manufacturer for component and its intended use.

2.2 COMPONENTS IN 106 UNIVERSAL W/C

- .1 Automatic Soap Dispenser: Bobrick B-2013 Automated Wall-Mounted Mounted Foam Soap Dispenser. Satin-finish stainless steel.
- .2 Toilet Paper Dispenser: Bobrick B-6977.60 Recessed Dual-Roll Toilet Tissue Dispenser. Satin-finish stainless steel.
- .3 Sanitary Napkin Disposal: Bobrick B-353 Recessed Sanitary Napkin Disposal. Satin-finish stainless steel.
- .4 Grab bars: Bobrick B-5806.99 (24, 30, 36) 1 ¼" 18 ga. tube, concealed mounting flange. Satin-finish stainless steel.
- .5 Clothes Hook: Bobrick B-983 Vandal-Resistant Clothes Hook. Satin-finish stainless steel.
- .6 Mirror: Bobrick B-290 1836/2460 Glass Mirror w/Stainless Steel Angle Frame. 18"x36" & 24"x60".
- .7 Shelf: Bobrick B-295x16 Stainless Steel Shelf. Satin-finish stainless steel.
- .8 Toilet Backrest: Frost 1028 Toilet Backrest, stainless steel finish.
- .9 Waste Receptacle: City supplied

2.3 COMPONENTS IN 112 STAFF W/C

- .1 Automatic Soap Dispenser: Bobrick B-2013 Automated Wall-Mounted Mounted Foam Soap Dispenser. Satin-finish stainless steel.
- .2 Toilet Paper Dispenser: Bobrick B-6977.60 Recessed Dual-Roll Toilet Tissue Dispenser. Satin-finish stainless steel.
- .3 Sanitary Napkin Disposal: Bobrick B-353 Recessed Sanitary Napkin Disposal. Satin-finish stainless steel.
- .4 Grab bars: Bobrick B-5806.99 (24, 30, 36) 1 ¼" 18 ga. tube, concealed mounting flange. Satin-finish stainless steel.
- .5 Clothes Hook: Bobrick B-983 Vandal-Resistant Clothes Hook. Satin-finish stainless steel.

- .6 Mirror: Bobrick B-290 1836 Glass Mirror w/Stainless Steel Angle Frame.
- .7 Shelf: Bobrick B-295x16 Stainless Steel Shelf. Satin-finish stainless steel.
- .8 Toilet Backrest: Frost 1028 Toilet Backrest, stainless steel finish.
- .9 Waste Receptacle: City supplied

2.4 COMPONENTS IN 108 MEN'S W/C & 109 WOMEN'S W/C

- .1 Automatic Soap Dispenser: Bobrick B-2013 Automated Wall-Mounted Mounted Foam Soap Dispenser. Satin-finish stainless steel.
- .2 Toilet Paper Dispenser: Bobrick B-6977.60 Recessed Dual-Roll Toilet Tissue Dispenser. Satin-finish stainless steel. In large stalls.
- .3 Toilet Paper Dispenser: Bobrick B-386 Partition-Mounted Dual-Sided Multi-Roll Toilet Tissue Dispenser. 283-604 theft-resistant spindles. Satin-finish stainless steel. Between two smaller women's stalls.
- .4 Sanitary Napkin Disposal: Bobrick B-353 Recessed Sanitary Napkin Disposal. Satin-finish stainless steel. In large women's stall.
- .5 Sanitary Napkin Disposal: Bobrick B-354 Partition-Mounted Sanitary Napkin Disposal. Satin-finish stainless steel. Between two smaller women's stalls.
- .6 Grab bars: Bobrick B-5806.99 (24, 30, 36) 1 ¼" 18 ga. tube, concealed mounting flange. Satin-finish stainless steel. In large stalls.
- .7 Clothes Hook: Bobrick B-983 Vandal-Resistant Clothes Hook. Satin-finish stainless steel.
- .8 Toilet Backrest: Frost 1028 Toilet Backrest, stainless steel finish. In large stalls.
- .9 Mirror: surface mounted with adhesive, height and width as drawn in drawings. See Section 08 80 50 – Glazing for mirror specifications.
- .10 Waste Receptacle & Baby Change Stations: City supplied, contractor installed.

2.5 COMPONENTS IN 111 JANITOR

- .1 Mop and broom holder: Bobrick B-223 Wall-Mounted mop and broom holder. Satin-finish stainless steel. Holds three mops, 5" x 24".

2.6 FINISHES

- .1 Chrome and nickel plating: to ASTM B 456, satin or polished finish.
- .2 Manufacturer's or brand names on face of units not acceptable.

3. EXECUTION

3.1 EXAMINATION

- .1 Verification of Conditions: verify that conditions of substrates and surfaces to receive toilet and bathroom accessories previously installed under other Sections or Contracts are acceptable for product installation in accordance with manufacturer's instructions prior to toilet and bathroom accessories installation.
- .2 Inform Contract Administrator of unacceptable conditions immediately upon discovery.
- .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval from Contract Administrator.

3.2 INSTALLATION

- .1 Install and secure accessories rigidly in place as follows:
 - .1 Stud walls: Provide 3/4" plywood backing for all wall mounted equipment.
 - .2 Hollow masonry units, existing plaster or drywall: use toggle bolts drilled into cell or wall cavity.
 - .3 Solid masonry, marble, stone or concrete: use bolt with lead expansion sleeve set into drilled hole.
 - .4 Toilet and shower compartments: use male to female through bolts.

- .2 Install grab bars on built-in anchors provided by bar manufacturer.
- .3 Install mirrors in accordance with Section 08 80 50 - Glazing.
- .4 Coordinate requirements for power supply, conduit, disconnect switched and wiring of electric hand dryer. Install electrical wiring in accordance with manufacturer's instructions.

3.3 ADJUSTING

- .1 Adjust toilet and bathroom accessories components and systems for correct function and operation in accordance with manufacturer's written instructions.
- .2 Lubricate moving parts to operate smoothly and fit accurately.
- .3 Proof test grab bars to manufacturer's specifications.

3.4 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
 - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.
- .3 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 35 20 – LEED Sustainable Requirements and Section 01 74 19 – Waste Management and Disposal.
 - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

3.5 PROTECTION

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by toilet and bathroom accessories installation.

3.6 SCHEDULE

- .1 Locate accessories where indicated on drawings and as indicated in this Section.

END OF SECTION.

1. GENERAL

1.1 RELATED REQUIREMENTS

- .1 Section 04 22 00 – Concrete Unit Masonry
- .2 Section 05 50 00 – Metal Fabrications

1.2 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Co-ordinate submittal requirements and provide submittals required by Section 01 35 20 – LEED Sustainable Requirements.
- .3 Product Data:
 - .1 Provide manufacturer's printed product literature and data sheets and include product characteristics, performance criteria, physical size, finish and limitations.
- .4 Shop Drawings: Include overall product dimensions, floor plan, elevations, sections, details, and attachments to other work. Include choice of options with details.

1.3 CLOSEOUT SUBMITTALS

- .1 Provide maintenance data for fireplace for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

1.4 MAINTENANCE MATERIAL SUBMITTALS

- .1 Tools:
 - .1 Provide special tools required for assembly, disassembly or removal fireplace in accordance with requirements specified in Section 01 78 00 - Closeout Submittals.
 - .2 Deliver special tools to Contract Administrator.

1.5 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials off ground indoors in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Store and protect toilet and bathroom accessories from nicks, scratches, and blemishes.
 - .3 Replace defective or damaged materials with new.
- .4 Packaging Waste Management: remove for reuse and return of pallets, crates, padding, and packaging materials.

2. PRODUCTS

2.1 MANUFACTURER

- .1 Acceptable Manufacturer: CF+D, Custom Fireplace Design
 - .1 5490 Harvester Rd., Burlington, ON L7L 5V4, Phone: 905-681-3070,
Vince Volpe, vince@cf-na.com
Website: www.customfireplacedesign.com

2.2 MODEL

- .1 Free-standing fireplace, floor mounted model.
Model: VF- Magmafocus - 2
Manufacturer: Burner only - Glen Dimplex Ireland

Description: Firebox and components – CF+D custom fireplace design
Heavy Gauge Steel Firebox
Colour: Interior colour: flat black, Exterior colour: white (RAL 9003)
Size: 43" Diameter
Firebox weight: 375 lbs.
Flue diameter: 8 1/2"
Fuel Type: Water
Plumbing: On board reservoir tank, one for each burner
Power : 120VAC, 2Amp per burner (2 burners req'd)

Base Product: Dimplex Electric Fireplace, Model No. DFI400RH
120 volts, 200 watts, 682 BTU from halogen lights, 2 amps
- 3D flame effect via halogen lights and fine mist
- removable water reservoir, auto-shut off when empty
- adjustable flame control
- safe cool-touch surfaces
- built-in switch c/w optional remote control

3. EXECUTION

3.1 EXAMINATION

- .1 Verification of Conditions: verify that conditions of substrates and surfaces to receive fireplace previously installed under other Sections or Contracts are acceptable for product installation in accordance with manufacturer's instructions prior to toilet and bathroom accessories installation.
- .2 Inform Contract Administrator of unacceptable conditions immediately upon discovery.
- .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval from Contract Administrator.

3.2 INSTALLATION

- .1 Install and secure fireplace rigidly in place as per manufacturer's instructions.
- .2 Coordinate requirements for power supply, conduit, water supply/drain of fireplace. Install electrical wiring in accordance with manufacturer's instructions.

3.3 ADJUSTING

- .1 Adjust fireplace for correct function and operation in accordance with manufacturer's written instructions.

3.4 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
 - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.
- .3 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 35 20 – LEED Sustainable Requirements and Section 01 74 19 – Waste Management and Disposal.
 - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

3.5 PROTECTION

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by fireplace installation.

END OF SECTION.

1. GENERAL

1.1 RELATED REQUIREMENTS

- .1 Section 04 22 00 – Concrete Unit Masonry

1.2 REFERENCES

- .1 American National Standards Institute (ANSI)
 - .1 ANSI/NFPA 10-[1998], Portable Fire Extinguishers.
- .2 Canada Green Building Council (CaGBC)
 - .1 LEED Canada NC 2009, LEED: Green Building Rating System Reference Package for New Construction and Major Renovations (including Addendum).
- .3 Underwriters' Laboratories of Canada (ULC)
 - .1 CAN/ULC-S508-[M90(R1995)], Rating and Fire Testing of Fire Extinguishers and Class "D" Extinguishing Media.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Co-ordinate submittal requirements and provide submittals required by Section 01 35 20 – LEED Sustainable Requirements.
- .3 Product Data:
 - .1 Provide manufacturer's printed product literature and data sheets and include product characteristics, performance criteria, physical size, finish and limitations.

1.4 CLOSEOUT SUBMITTALS

- .1 Provide maintenance data for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

1.5 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials off ground indoors in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Store and protect toilet and bathroom accessories from nicks, scratches, and blemishes.
 - .3 Replace defective or damaged materials with new.
- .4 Packaging Waste Management: remove for reuse and return of pallets, crates, padding, and packaging materials.

2. PRODUCTS

2.1 MULTI-PURPOSE DRY CHEMICAL EXTINGUISHERS

- .1 Stored pressure rechargeable type with hose and shut-off nozzle, ULC labelled for A, B and C class protection. Locate as indicated on the drawings.
 - .1 Size: 4.5 kg.

2.2 WET CHEMICAL EXTINGUISHERS

- .1 Stored pressure rechargeable type with hose and shut-off nozzle, ULC labelled for K class protection. Locate as indicated on the drawings.
 - .1 Size: 6 L/6.4 kg.

2.3 EXTINGUISHER BRACKETS

- .1 Type recommended by extinguisher manufacturer.

2.4 CABINETS

- .1 Fully recessed and semi-recessed types as indicated, constructed of 1.6mm thick steel, 180 degree opening door of 2.5mm thick steel with latching device. Locate recessed cabinets as indicated on drawings.
- .2 Cabinet to maintain fire resistive rating of construction in which they occur
- .3 Cabinet door: with tall narrow window slot
- .4 Finish: tub, prime coated; door and frame, no.4 stainless steel satin finish

2.5 IDENTIFICATION

- .1 Identify extinguishers in accordance with recommendations of ANSI/NFPA 10, CAN/ULC-S508.
- .2 Attach bilingual tag or label to extinguishers, indicating month and year of installation. Provide space for service dates.

2.6 SIGNAGE

- .1 Signage to be provided as necessary with requirements of authorities having jurisdiction to indicate locations of portable extinguishers.

3. EXECUTION

3.1 EXAMINATION

- .1 Examine fire extinguishers for proper charging and tagging.
- .2 Remove and replace damaged, defective, or undercharged fire extinguishers.
- .3 Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- .1 General: Install fire extinguishers and mounting brackets in locations indicated and in compliance with requirements of authorities having jurisdiction.
 - .1 Mounting Brackets: 54 inches (1372 mm) above finished floor to top of fire extinguisher.
- .2 Mounting Brackets: Fasten mounting brackets to surfaces, square and plumb, at locations indicated.

END OF SECTION.

1. GENERAL

1.1 RELATED REQUIREMENTS

- .1 Section 04 22 00 – Concrete Unit Masonry
- .2 Section 07 21 13 – Board Insulation
- .3 Section 07 46 13 – Thermofused Membrane Air/Vapour Barrier

1.2 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials off ground indoors in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Store and protect book chute from nicks, scratches, and blemishes.
- .4 Packaging Waste Management: remove for reuse and return of pallets, crates, padding, and packaging materials.

2. PRODUCTS

2.1 MANUFACTURED UNITS TO BE SUPPLIED BY CITY

- .1 Manufacturer: Kingsley
 - .1 10-8700 single drop through wall unit
 - .1 20 ½”H x 22 ½”W x 16” D with 3”x18” depository opening

3. EXECUTION

3.1 EXAMINATION

- .1 Coordination of Work: coordinate and confirm sizes of rough openings with City for equipment specified prior to masonry construction.
- .2 Verification of Conditions: verify that conditions of substrates and surfaces to receive book chute previously installed under other Sections or Contracts are acceptable for product installation in accordance with manufacturer's instructions prior to masonry installation.
- .3 Inform Contract Administrator of unacceptable conditions immediately upon discovery.
- .4 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval from Contract Administrator.

3.2 INSTALLATION

- .1 Install and secure equipment as per manufacturer's instructions. Ensure AVB is tied and sealed into opening for watertight penetration.

3.3 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
 - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.

3.4 PROTECTION

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by book chute installation.

END OF SECTION.